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**Material Separation Plan 4  
For the Diversion of Mercury  
January 1, 2007 – December 31, 2008**

**SEMASS Resource Recovery Facility –  
Rochester, Massachusetts**

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**July 2006**

Prepared by:

Covanta of SEMASS, L.P.  
141 Cranberry Highway  
West Wareham, Massachusetts 02576



MATERIAL SEPARATION PLAN 4,  
January 1, 2007 – December 31, 2008  
SEMASS Resource Recovery Facility – Rochester, Massachusetts

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## **ATTACHMENTS**

- A. List of Long-Term SEMASS Communities

## **I. BACKGROUND**

In accordance with the requirements of 310 CMR 7.08, and on behalf of the SEMASS Partnership, attached is the fourth installment of the Material Separation Plan (MSP4) for the diversion of mercury and mercury-containing manufactured articles (MCMAs). MSP4 has been prepared to address the solid waste regulations noted above, guidance and technical comments from the Massachusetts Department of Environmental Protection (Department), and input from Plan stakeholders.

The SEMASS Partnership (SEMASS) owns and operates the SEMASS Resource Recovery Facility (SEMASS RRF) in Rochester, Massachusetts. Covanta Energy Corporation acquired American Ref-Fuel Holdings Corporation, including American Ref-Fuel of SEMASS, in June 2005. American Ref-Fuel of SEMASS is now known as Covanta of SEMASS L.P. Covanta of SEMASS is the managing general partner of SEMASS.

SEMASS provides solid waste processing and disposal services for more than sixty long-term contracted, residential community customers (SEMASS Communities) located primarily in southeastern Massachusetts, Cape Cod, and the Boston vicinity. The SEMASS RRF receives and processes approximately 1.0 – 1.1 million tons of solid waste annually. Based on the latest data (2004) compiled by the Commonwealth (Executive Office of Environmental Affairs, *Solid Waste Master Plan: 2006 Plan Revision*, dated June 2006), the Commonwealth generates 13.9 million tons of solid waste and diverts approximately 7.6 million tons for recycling. The balance or 6.4 million tons is disposed/processed in-state (4.8 million tons) or exported for out-of-state disposal (1.6 million tons). Therefore, the SEMASS Resource Recovery Facility and its associated satellite facilities handle more than one-fifth of all municipal solid waste processed / disposed in the Commonwealth. Electricity created from the processing of solid waste at the SEMASS RRF is sufficient to power more than 75,000 households. Between 45,000 and 50,000 tons of recyclable ferrous and non-ferrous metals are typically reclaimed each year from waste processing at the SEMASS RRF.

The goals of the Material Separation Plan are fourfold: 1) identify products in the solid waste stream that contain significant quantities of mercury, 2) provide the instructional and outreach support necessary to educate the SEMASS communities, their associated businesses, and the general public about the reasons to reduce mercury in the waste stream and how to recover and recycle mercury and mercury-containing manufactured articles (MCMAs) before disposal as solid waste, 3) aid the SEMASS customer base in implementing mercury removal and recycling programs, and 4) effectively manage activities related to these goals to maximize the value of every dollar invested in the program.

It remains Covanta Energy's firm belief that the most efficient method to prevent the disposal of mercury in solid wastes is for the manufacturers of articles containing this compound to modify or substitute other, less toxic compounds that can achieve a comparable function. However, until voluntary efforts by these manufacturers occur and/or further federal and state regulatory requirements are promulgated to achieve this objective, Covanta of SEMASS remains dedicated to our continued commitment to the Material Separation Program to reduce the amount of mercury disposed in the solid waste stream.

Preparation of this Plan has been based on input received from the SEMASS communities via the Council of SEMASS Communities (COSC) meetings, stakeholder meetings held during March 2006, the local community Recycling Coordinators, the Department, and/or direct suggestions from community individuals.

## II. APPLICABILITY OF PLAN BENEFITS AND PLAN EXCLUSIONS

This section clarifies who is eligible to receive plan benefits under the MSP Program and areas where Program support is excluded.

**Applicability of Plan Benefits.** SEMASS' long-term contracted communities financially support the MSP program via language in their specific contracts with SEMASS. Therefore, these communities will receive full Plan benefits (Tier 1 categorization). However, the MSP Program needs to address all of the solid waste (both municipal and commercial) in SEMASS' waste shed which can potentially include mercury or mercury-containing articles. Therefore two additional, lesser categories of support have been created under MSP4 to address this. See Table 1.

**TABLE 1. MSP PROGRAM BENEFIT COVERAGE**

Category	Description	Plan Benefits
Tier 1	<ul style="list-style-type: none"> <li>SEMASS Long-Term Contracted Communities <sup>(1)</sup>; Refer to Attachment A</li> </ul>	Full Plan Benefits
Tier 2	<ul style="list-style-type: none"> <li>Businesses within the SEMASS Long-Term Contracted Communities</li> </ul>	Plan Benefits targeted to Specific businesses under the Program or to general businesses. Refer to Section III
Tier 3	<ul style="list-style-type: none"> <li>Non SEMASS Long-Term Contract Communities that send significant solid waste volumes to the SEMASS RRF.</li> <li>Businesses in the communities above</li> </ul>	Limited Plan Benefits as determined on a case-by-case basis based on potential mercury amounts. See text discussion.
Not Supported	<ul style="list-style-type: none"> <li>Non SEMASS Long-Term Contract Communities that don't send significant solid waste volumes to the SEMASS RRF.</li> <li>Businesses in the communities above</li> </ul>	None

Notes:

( 1 ) Includes associated municipally-supported recycling organizations.

Priority of Program Support. To the extent practical, program support will be provided in the order as follows: 1) Tier 1 (long-term SEMASS Communities), Tier 2 (businesses in long-Term SEMASS communities), and, Tier 3 (non-SEMASS communities and/or businesses with large

potential mercury sources). Tier 3 support will be provided (on a limited case-by-case basis) only when funding/resources are available and if the potential sources of mercury are large or significant.

Written requests for Plan Support. In general, requests for Plan benefits and support need to be submitted in writing (letter, FAX, e-mail, etc.) to either the MSP Program Manager or Program Coordinator. This is necessary to fully document the program progress and to accurately track type of mercury articles and how they were reclaimed by Town and task. The Department requires that this information be provided in the annual program reporting issued to the Public.

**Plan Exclusions.** Certain items or activities are not covered under the MSP Program scope.

Wastes Not Accepted. Only quantities of pure elemental mercury or mercury-containing manufactured articles containing elemental mercury will be collected and reclaimed under this program. Organo-mercury compounds and other mercury alloys (i.e. such as dental amalgams) will not normally be eligible for Plan benefits. These compounds will typically have to be disposed of as special and/or hazardous wastes and the usual “Universal Waste” processing means, methods and contractors that SEMASS utilizes on this program cannot reclaim these materials.

Other manufactured articles that do not contain mercury (for example: PCB ballasts for fluorescent light fixtures) will not be eligible for Plan benefits under the MSP program. This may include other household hazardous wastes (paints, solvents, etc.) or other universal wastes (electronic-wastes, electronics, monitors and cathode ray tubes).

Liability of Mercury Spills and/or Releases. Due to the inherent nature of the MSP program, reclamation and recycling of mercury and mercury-containing manufactured articles may result in an accidental release or spill. Covanta of SEMASS, Covanta Energy, or the SEMASS Partnership will NOT be held liable for the impacts of such an incident unless directly caused by our activities. Ultimate liability of these materials lies with the generators of these materials/products or the contractors who have been hired to transport and/or recycle them.

To reduce the possibility of these types of incidents, SEMASS has designed this Plan and our MSP Program to reduce the likelihood of such an occurrence. Safeguards include:

- IWSA education and outreach
- General information flyers, mailings, etc to communities and businesses
- Providing local mercury handling and awareness training events on a periodic basis.
- Furnishing Universal waste sheds & safety signage for temporary storage of MCMAs
- Reimbursement of costs associated with proper secondary containment and packaging (e.g. plastic buckets, plastic bags, etc.)
- Furnishing spill kits and associated training to address small spills
- When necessary, authorizing direct Reclamation Contractor pickup of elemental mercury and large quantities of MCMAs

Should a spill event or release occur, SEMASS may provide advice, recommendations, or other actions (on a case-by-case basis) to assist a long-term community or outside 3<sup>rd</sup> party to safely and properly characterize, address, and mitigate the spill.

### III. SCOPE OF PLAN ACTIVITIES

The scope of Material Separation Plan 4 (MSP4) activities are detailed below and broken down into four primary tasks: 1.0 - Integrated Solid Waste Association (IWSA) Education and Outreach, 2.0 – Local Education and Outreach, 3.0 – Mercury Reduction / Recycling Programs, and 4.0 – Program Administration.

High level advertising and outreach is the focus of Task 1.0 activities. These activities are conducted by IWSA on behalf of all facilities in the Commonwealth of Massachusetts who implement the MSP Program. The purpose of Task 1.0 is to promote general awareness of the hazards associated with mercury, identify which products contain mercury, and promote the recycling/reclamation potential offered by the MSP Program through efforts by SEMASS and other waste-to-energy (WTE) facilities. Task 2.0 activities are led by SEMASS and directed towards our regional waste shed area. These activities focus and build off Task 1.0 activities by conducting more direct, and localized outreach, awareness, and training activities focused on communities, schools, and businesses. Tasks 1.0 and 2.0 seek to change behaviors of community, business, and educational personnel as well as the general public to become more aware of mercury hazards, recognize products that contain mercury, and learn options to safely reclaim and recycle them. Task 3.0 activities utilize the outreach and awareness accomplished under the prior tasks to target specific sources of mercury and specify the actions to reclaim and recycle those sources of mercury. Task 4.0 involves the administrative effort required to operate, manage and report efforts on the MSP Program.

MSP4 incorporates many of the prior activities from MSP3 but include a number of changes discussed with Plan stakeholders during outreach meetings conducted in March 2006. These changes include the following:

- Addition of a new task to identify, reclaim and replace municipal thermostats in town buildings, schools and DPW facilities.
- Addition of a new task for improved business outreach and mercury reclamation for general businesses with a special focus on tanning salons (high intensity mercury lamps).
- Addition of a new task to identify and reclaim older, mercury-containing water meters in municipal water treatment plants
- Expansion of medical outreach and reclamation activities to community health centers (MADEP's "Hospitals for a Health Environment" program) as well as animal hospitals and veterinarian clinics
  - Improvement of feedback/communications to the SEMASS long-term communities
  - Support of increased signage for municipal household hazardous waste events
  - Discontinuation of activities associated with "white goods" (e.g. washer, dryer) mercury switch recycling

The MSP program cannot remain static but needs to adapt to newer, and more productive areas for mercury and mercury-containing articles as earlier, targeted sources are exhausted. This maximizes mercury removal rates and increases participation which translates to the largest degree of mercury separation from the potential solid waste stream. Covanta of SEMASS will continue to adapt and modify Plan activities and consequently shift funds throughout the duration of this Plan in search of this maximum level of efficiency.

MSP4 presents an increased variety of Plan activities so that participating communities and businesses can choose a wide variety of options to implement mercury recovery and recycling in a manner that best suits their needs. SEMASS continues to find that providing participants with a flexible approach has been a key ingredient for continued success of the Plan's implementation.

### **Task 1.0 – IWSA Education and Outreach**

As during the prior MSP Plans, SEMASS will partner with other waste-to-energy (WTE) companies operating in the Commonwealth to jointly sponsor education and outreach activities conducted by the Integrated Waste Services Association (IWSA).

The following proposal summarizes activities to be completed by the Integrated Waste Services Association (IWSA) for its member facilities in Massachusetts. Each activity listed below will be implemented between January, 2007, through December, 2008. Specific timelines are provided for each activity, but times are estimates only.

Similarly target populations are provided with each activity, but given the wider reach of mass media, it is probable that people outside the targeted groups will be affected.

As requested by the Massachusetts Department of Environmental Protection and consistent with the prior year MSP, each activity provided herein describes the activity including its education value, the targeted population, an estimated timeline for implementation, estimated cost, and an explanation of where the activity will take place (i.e., the specific medium for the message.) Each activity described herein does not contain a discussion of the evaluation process, which instead is provided more generally because one evaluation tool (the research study) is used for all activities.

**Objectives.** IWSA's Education Plan for MSP1 produced a media campaign "Keep Mercury from Rising" including newspaper and radio advertisements, posters, and a brochure for use by the facilities. The "Keep Mercury from Rising" campaign continued through 2006, and requires significant changes to increase its effectiveness with its targeted audience.

The 2006 Poll, provided to the Department under separate cover, gives important feedback in the development of a newer campaign. For example, 2006 polling results measured low name recognition for the "Keep Mercury from Rising" slogan, with only 21% of respondents claiming to have heard the slogan and few of those not quite sure where they heard it. A sizable number of people, about 30%, reported that they did not know where their trash goes for disposal.

Equally interesting, general awareness of mercury's hazard is at its highest with 90% reporting they considered it a hazardous material. Nearly two-thirds of respondents said that exposure to mercury is a serious threat to both their family's health and the environment.

The fact of low campaign recognition with higher awareness of mercury's hazard should be considered along with the fact that people are more likely to throw away mercury-containing products. Although the polling revealed that more people today (35% of respondents) would



take a broken mercury item to a hazardous waste center, more people would also throw away the broken mercury item (31% in 2006 versus 27% in 2005 and only 16% in 2004). Less people (15% in 2006 versus 25% in 2005 and 44% in 2004) would hold onto the product until the city or town had a collection day for such materials. Given the heightened mercury awareness, respondents may be choosing to immediately dispose of the broken mercury item because of higher awareness and fear.

IWSA proposes to remodel the “Keep Mercury from Rising” campaign materials based on feedback from polling, and discussions with local community officials, plant officials and the general public. The MSP4 will build upon the prior year’s work by continuing to use targeted advertising to reach communities serviced by waste-to-energy facilities. IWSA proposes a more colorful, action-oriented media campaign. Facilities will be more prominently displayed on all print and radio advertisements. Emphasis will be on the facility programs and the mercury-containing items in our trash, in particular thermostats, button batteries and florescent lights. The objectives for MSP4 include the following:

- Continue to raise awareness about mercury-containing products in the home and the proper handling and disposal of these products;
- Provide information and promote local recycling events and other facility and community programs aimed at removing mercury from the waste stream;
- Rebuild an image to promote an integrated communications program that leverages opportunities for incremental, free media, and works synergistically with the efforts of individual waste-to-energy facilities.

**Approach.** IWSA will continue targeted advertising to reach communities serviced by the facilities, as well as implement marketing of radio advertisements and live-read script to run as public service announcements. The facilities through their Association also propose to expand web capabilities to provide additional tools for residents in target communities to participate in recycling of mercury-containing products. IWSA also will reach out to the media to generate media coverage of the public education campaign. A great many more pictures of programs being administered and mercury-containing items will be used. The plan will be implemented using the tools discussed below.

**1.1 Advertising.** Radio advertising will be used. Radio is a targeted medium that provides cost-efficient mass communication and quickly builds frequency of message delivery. Radio added-value programs can provide an opportunity to interact with local communities. Print advertising will not be used for the state-wide campaign. Local facilities may publish print ads when announcing specific events, but these ads will be directed by individual facilities as needed.

Activity Scope. IWSA proposes to update the prior radio advertisement used during MSP3. After this is completed, IWSA will implement a two-week radio buy in May and September of each year. The buy would be scheduled to encourage mercury recycling activities and added-value opportunities (e.g., sponsorship of special broadcasts, contests, and free spots stations provide) will be considered in development and negotiation of the buy.

Timeline. Development of a new radio advertisement would be conducted in the period of January – April 2007. The two-week radio buy in May and September, 2007 and 2008.

**1.2 Web-based Tools.** This internet-based community information resource is available at [www.keepmercuryfromrising.org](http://www.keepmercuryfromrising.org). The website will be revised to reflect the new theme/campaign style and focus more on facility programs and the mercury-containing items in trash including information regarding where you might find the products in your home and where the products should go for proper disposal. IWSA will ensure the material is easy to download, and will investigate putting a “counter” on the website to see how many “hits” it receives for evaluative purposes. Facilities also will be more prominent on all pages and links.

Activity Scope. Continue to build upon web-based capabilities for dissemination of information on local programs and recycling events.

Timeline. This activity will be ongoing throughout the Plan period.

**1.3 Print Materials.** After development of a new campaign theme and layout for print materials, two types of posters will be developed. First, a poster will be developed for use by facilities and clients that allows for users to put information about events on the lower half of the poster. Second, a general, more banner-like poster will be developed for use as a backdrop for events and meetings. Separate posters will be developed for three mercury-containing items: thermostats, button batteries and florescent lamps. In addition, the more general, larger poster will include pictures of all such items.

A flyer also will be developed based on the new theme. A tri-fold brochure will be developed that focuses on the myriad of programs conducted by facilities and the mercury-containing items in trash including where you might find them and where they should be taken for proper disposal.

Activity Scope. IWSA will support facilities as needed with additional print materials.

Timeline. Development of the new print materials is expected to occur from January through April 2007. Printing and dissemination of the new materials would then be expected to begin in May 2007 and be ongoing throughout the remainder of the Plan period.

**1.4 Video.** IWSA will investigate changes to the existing video to update information and company changes (e.g. Covanta Energy for American Ref-Fuel). Individual facilities will continue to disseminate the video completed in 2003 (and updated accordingly) to local broadcast and cable outlets, as well as schools, libraries and other public offices.

Activity Scope. Dissemination of video as requested by facilities, public groups and the media.

Timeline. Upon completion of the video update, this activity will be ongoing throughout the Plan period.

**1.5 Evaluation Tool.** The effectiveness of all activities will be measured by a research survey. The 2007 and 2008 surveys will be completed in the first half of the year shortly after placement of paid media and compared with earlier polls to better define the audience and the effectiveness of the message and media. The polls will be designed to measure positive changes in public attitudes and behaviors, as well as the receptiveness of the message.

Activity Scope. The survey questionnaire will time out at between six and eight minutes in length, and the study will consist of 400-500 completes, providing a + / - 4.39% error rate at a 95% confidence level. The survey will be executed via random digit dialing from electronically generated phone lists. A series of screen questions would produce the necessary targeted universe of respondents.

Timeline. The surveys are expected to go into the field in May of each year, shortly after completion of publication of print and airing of radio media.

## **Task 2.0 – Local Education and Outreach**

In addition to the campaign conducted by IWSA, SEMASS will continue to implement a program that supplements education and outreach with additional mailings and messages designed to meet the needs of the SEMASS communities and customers.

**Objectives.** A key objective during MSP4 will be to continue to explain that certain products contain mercury and have hazards as well as the opportunity for reclamation of these products to communities and local businesses within the Plan geographic area. The goal will be to expand knowledge of the Plan activities to these targeted sectors while maintaining the momentum of education and outreach accomplished with SEMASS customers during MSP3.

**Approach.** New efforts will be devised to reach additional customers and local businesses including some of the following:

- Improved feedback/communications to the SEMASS long-term communities
- Working with local Chambers of Commerce for business outreach
- The MSP Program Coordinator will continue to give presentations at the Council of SEMASS Community (COSC) meetings, to explain the opportunities of the MSP program and to encourage participation
- SEMASS will also send a direct mail postcard to each of the contacts within SEMASS' geographic area, making them aware of the activities available with the MSP4, as well directing them to web-sites that they may download a copy of the entire Plan

Efforts for local education and outreach will involve similar activities that were conducted during MSP3. These include: financial support of mailings/flyers brochures initiated by those communities/organizations, and in-person visits by the MSP Program Coordinator.

**2.1 Community and School Outreach.** SEMASS will conduct activities to support the communities, other municipal recycling organizations, and schools in the goals of education, outreach, and removal of mercury-containing products. The primary purpose of this subtask will be to assist each community in their preferred methods of information dispersal. In addition, the MSP Program Coordinator will offer guidance along with the proper tools (e.g., training sessions, supplies) and advertising to conduct outreach on the Plan in an attempt to ensure successful mercury-reclamation programs.

Activity Scope. SEMASS will assist in the development and funding of customized, direct mail pieces and/or posters that address diversion of mercury-containing articles in support of community and school education and outreach. In addition, SEMASS will assist communities or school organizations with requests for creation and/or funding of other local print advertising in support of education and outreach activities. These activities will be evaluated on a case-by-case basis with regards to the applicability to the diversion of mercury or mercury-containing products from the waste stream as well as the anticipated degree of enhancement for a particular targeted activity. These supplemental advertising efforts will be conducted, to the extent practical, to complement efforts conducted by the IWSA under Task 1.0. For example, SEMASS will emphasize the use of IWSA's website [www.keepmercuryfromrising.org](http://www.keepmercuryfromrising.org) on direct mail pamphlets, advertising, and other potential media.

SEMASS will promote the distribution of outreach materials developed as part of IWSA's Task 1.0 activities including general mercury flyers, posters, banners, and other print materials, videos or DVDs, website links and the results of annual mercury/public awareness surveys. A general mailing will be conducted annually to the distribution list program distribution list offering these materials as well as other opportunities associated with MSP4.

SEMASS will strive to improve communications with our municipal contacts on the program. The key component of this is maintenance of the master mailing/distribution list which details municipal contacts in all of our Program communities. Key activities related to this will include:

- Issue annual requests for updates/changes to the master mailing list (names, addresses, e-mail address, etc.)
- Add e-mail distribution of documents & mailings in addition to paper (e.g hardcopy) distribution for mass mailings on the program.
- Develop and improve web site links to Covanta of SEMASS' website for information related to the MSP Program. This may include downloadable electronic copies of the Plan, Annual Reports, forms, and links to other sources of information (IWSA), notices of upcoming events, etc.

SEMASS will continue to work with schools or educational organizations in the Plan service area to promote mercury awareness and reclamation/recycling to conduct mercury awareness presentations. SEMASS may generate interest in these outreach activities through a combination of phone calls, letters, or in-person visits. Should opportunities present themselves, SEMASS may also award grants and other funding so that mercury awareness and education are incorporated into their school curricula. When appropriate, tours of the SEMASS RRF or its auxiliary facilities (landfill, transfer stations, convenience drop-off centers, etc.) will be

conducted on behalf of these groups to educate the public on the combined roles of the Waste-to-Energy (WTE) facilities and the MSP program in diverting mercury-containing products from the solid waste stream.

The MSP Program Coordinator will attend all meetings with the Council of SEMASS Communities (COSC) to discuss the results of the program-to-date, encourage feedback and comments, and, if necessary, to modify the program to better customize it to community needs and requests. Program updates will be provided to discuss the current status.

SEMASS may attend and/or sponsor booths at local (Massachusetts or New England) environmental conferences and/or organizational meetings for the purpose of further extending the efforts by IWSA detailed in Task 1.0 as well as the program opportunities offered by SEMASS. A list of some of the potential local conferences or organizational meetings include the following:

- Northeast Resource Recovery Association
- Massachusetts Municipal Association
- Solid Waste Association of North America: Regional & local Chapter Meetings
- Waste Expo
- New England Environmental Expo

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan. Annual requests for updates of the master mailing list will be conducted during the 1<sup>st</sup> quarter of each year. Distribution of the mailing identifying IWSA outreach materials will be conducted during the 2<sup>nd</sup> quarter to coincide with spring household hazardous waste events.

**2.2 Business Outreach.** The primary purpose of this subtask will be to conduct several means of outreach to local businesses, to notify these facilities of the Plan, identify those facilities with significant potential for mercury and/or mercury-manufactured articles, and encourage these companies to join in implementing some of the mercury reclamation tasks detailed in Task 3.0.

Activity Scope. SEMASS will conduct the following various outreach aspects:

- SEMASS will use their in-house mailing list to ensure that all long-term SEMASS communities receive notification of reimbursement opportunities for businesses that operate within their boundaries.
- SEMASS will provide each of our long-term communities with this information to distribute via the town's website, the Chambers-of-Commerce, local cable television access, or other means business sources to communicate the registration process with SEMASS for the reimbursement activities on a first come-first served basis. If requested, SEMASS will conduct presentations/meetings to assist with this process.
- SEMASS will conduct a separate, direct-mailing to tanning salons operating within the SEMASS service area and seek to coordinate outreach efforts for fluorescent light bulbs used in the tanning beds for mercury reclamation. Due to their intensity, these bulbs contain higher amounts of mercury than normal fluorescent lights. SEMASS will work with the Department and the Northeast Waste Management Officials' Association

(NEWMOA) to determine unit quantities of mercury per bulb. Quantities of these bulbs reclaimed will be tracked differently in the annual reports to appropriately quantify the amounts of mercury reclaimed.

Via new subtask 3.9, all registered businesses will be eligible to submit claims to SEMASS for reimbursement of eligible costs incurred in the collection, reclamation, and recycling of mercury and mercury-containing products. Other than the additional, specific outreach efforts targeted to them, tanning salons will follow the same reimbursement process as all other businesses in our long-term SEMASS communities.

Timeline. Efforts for this activity will initiate beginning in January 2007 and continue through the end of the MSP4 period.

**2.3 Mercury Handling and Awareness Training.** The primary purpose of this subtask is to ensure that the long-term SEMASS communities and businesses have available to them proper training by a third party vendor. This training has been a key component to ensure that those people that come into contact with the mercury-containing products understand the importance of proper handling, labeling and storage of the devices, and potential accidental spillage.

Activity Scope. SEMASS will continue to make training sessions available to communities and registered businesses by utilizing SEMASS' in-house mailing list for a direct mailer to advise communities when and where the sessions shall be occurring. These training sessions will also be open to other groups including municipal and regional recycling organizations, school educators and school support staff (such as janitors). Training sessions will be scheduled, organized and attended by the MSP Program Coordinator or other SEMASS staff and led by outside contractors familiar with mercury handling and awareness (refer to Section IV of this Plan). Up to six (6) training sessions will be conducted as part of MSP4 activities and held at mutually agreeable locations within the Plan geographic area. The objective will be to vary the training locations by geography to promote increased participation.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan but primarily focused during Spring and Fall periods.

### **Task 3.0 - Mercury Reduction / Recycling Programs**

**Objectives.** Task 3.0 involves direct activities that result in identification, location, separation, handling, transportation and recycling of elemental mercury or mercury-containing products. Subtasks are targeted to particular areas where further sources of mercury or mercury-containing products may be found.

**Approach.** In accordance with directives issued by the Department during MSP3, measurement and reporting of elemental sources of mercury will be conducted by a) obtaining direct weights of the quantity of mercury itself, when at all possible or b) counting the mercury-containing articles and applying standard conversion factors. In order to minimize the exposure risk to reclamation personnel and others, mercury-containing containers and products will not be

opened. Tare weights of the containers or products holding the elemental mercury will be estimated to the degree practical.

Unless otherwise noted, SEMASS will utilize the standard conversion factors for mercury-containing products developed by the Northeast Waste Management Officials' Association (NEWMOA) and detailed in Table 2, below.

Please note that neither the Department nor NEWMOA have developed standard conversion factors for the some of the mercury-containing products that SEMASS may encounter during MSP4 (for example, high intensity tanning salon fluorescent lights, water meters, etc.). SEMASS will assume conversion factors based on best available technical information or utilize direct measurements, if possible. These factors will be listed on annual report tables to clarify the assumptions used.

**TABLE 2. CONVERSION FACTORS FOR MERCURY-CONTAINING MANUFACTURED ARTICLES**

<b>Name of Mercury-Containing Product:</b>	<b>Quantity of Mercury: <sup>(a)</sup></b>
Fluorescent Lamps (straight)	0.005 grams (5 mg) per Linear Foot of Lamp
Glass Fever Thermometers	1 gram per unit
Laboratory Thermometers	3 grams per unit
Blood Pressure Cuffs	110 grams per unit
Barometers	500 grams per unit
Sling Psychrometers	6 grams per unit
Thermostats (Residential & Commercial)	4.5 grams per unit
Mercury Switches	8 grams per unit <sup>(2)</sup>
Float Switches	4.5 grams per unit <sup>(2)</sup>
Mercury Button Cell Batteries	0.009 grams (9 mg) per unit
U-Tube Fluorescent Lamps	0.0175 grams (17.5 mg) per unit <sup>(b)</sup>
Circular Bulb Fluorescent Lamps	0.0175 grams (17.5 mg) per unit <sup>(b)</sup>
Compact Lights	0.0175 grams (17.5 mg) per unit <sup>(b)</sup>
HID Lamps	0.035 grams (35 mg) per unit <sup>(b)</sup>

**Notes:**

- a. Source of factors: NEWMOA factors contained in MADEP letter to SEMASS dated 2/18/04.
- b. Assumed factors utilized during MSP2 by SEMASS.

**3.1 Medical, Dental & Veterinarian Facilities.** The primary focus for this task will be to target mercury-containing blood pressure cuff units (sphygomanometers) from medical, dental or veterinarian facilities that have not switched to non-mercury, aneroid units. A further focus will be to expand this task to veterinarian and animal hospital facilities in search of thermometers and other miscellaneous mercury-containing articles.

If feasible, SEMASS will work co-operatively with DEP's *Hospitals for a Health Environment* (H2E) initiative which focuses environmental programs on community health clinics and other non-profit facilities. SEMASS support at these facilities will be based on the criteria set forth in Section II plus any other support requests that may be received from municipalities and/or businesses in our Plan geographic area.

Activity Scope. Funds are included in the budget for packaging, reclamation, and recycling of up to one-hundred and forty (140) blood pressure cuff units (120 wall mounted; 20 mobile) with replacement by new, non-mercury, aneroid units (average 70 per year). It is assumed that these activities may require periodic collection by the mercury reclamation contractor. Funding for replacement of non-mercury, aneroid blood pressure cuff units represents a substantial fraction of the total costs and, therefore, will be evaluated on a case-by-case basis of qualified, actual costs. Scope and funding is also included in this Plan for twenty (20) pickups of miscellaneous mercury devices at medical, dental or veterinarian facilities (average of 10 per year).

Dental facilities were strongly addressed during MSP3 and only small sources of elemental mercury were reclaimed. These facilities will be de-emphasized during MSP4. The primary mercury sources found were dental amalgam wastewater filters which are being addressed in a separate DEP program. It is SEMASS' opinion that this is a wastewater problem rather than a solid waste problem. As discussed in Section II, reclamation of mercury from dental amalgams is problematic due to its combination with other metals. Separation is not accomplished using typical mercury recovery processes. As a result, SEMASS will not conduct further mass mailing outreach efforts to dentists or dental facilities during MSP4. However, if dental facilities are identified with sources of elemental mercury, SEMASS will assist reclamation of these materials on a case-by-case basis under this task.

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan.

**3.2 Thermometer Exchange Programs.** Due to the continuing, steady popularity of this activity, this task will continue to be implemented in a manner similar to prior Plan years. As noted in past IWSA surveys, thermometers remain one of the most recognizable mercury-containing devices to the Public. Residents, schools and health care facilities can continue to be invited to bring glass fever thermometers to a convenient (usually municipal) location and exchange them for new, digital, non-mercury thermometers. During MSP3, many points of exchange occurred during community household hazardous waste collection events. SEMASS will continue to support this approach for thermometer exchange events as part of MSP4 by furnishing communities with replacement, non-mercury digital thermometers and providing incentives such as Dunkin' Donuts<sup>TM</sup> coupons or other outreach materials such as pens, pads, keychains, etc to incentivize the activity.

Activity Scope. Funding and scope are included in this Plan for purchase of up to five-thousand (5,000) digital, non-mercury replacement thermometers. In addition, this task scope includes purchase of Dunkin' Donuts<sup>TM</sup> dollar coupons as well as other incentive items plus logistical materials (e.g., buckets, flyers, mercury spill kits).



Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, most thermometer exchange activity is expected to concur with community HHW events that occur during the spring-summer-fall periods.

**3.3 Community Reimbursement & HHW Support.** This task details activities associated with municipal household hazardous waste (HHW) collection events. SEMASS will reimburse communities for the costs associated with the reclamation of mercury-containing articles, elemental mercury, contractor costs for “counting” devices, transportation fees and reasonable costs for secondary containment (plastic buckets & bags) and packaging.

SEMASS may also provide supplemental funding for appropriate newsletter and/or pamphlet distributions or other forms of advertising such as local print ads, sandwich boards, etc. In the past, communities have requested funding for direct mail pieces, locals ads and/or signage that have provided notice for Household Hazardous Waste (HHW) or other specialized collection events (e.g. thermometer exchanges, etc.). SEMASS will continue this activity during MSP4. Residential participation at HHW events has been shown to be a successful tool in diverting mercury from the waste stream as well as other potentially harmful items and products. The funding of these direct mail distributions has been an important component towards the success of the HHW events.

Activity Scope. Eligible SEMASS communities (as defined in Section II of this Plan) can submit claims to SEMASS for reimbursement of those costs incurred in the collection, reclamation, and recycling of mercury and mercury-containing articles. Claims for reimbursement will be evaluated and processed by SEMASS on a semi-annual basis. SEMASS will send out letters to eligible communities identifying the parameters and means by which they may apply for reimbursement claims. SEMASS will utilize their in-house mailing list to so that eligible communities receive notification of reimbursement opportunities. Scope is included in this Plan based on past, historical reimbursement amounts as well as past requests for HHW event advertising and support.

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan but typically coincide with spring or fall HHW events. Requests for municipal reimbursement will be distributed to eligible communities on a semi-annual basis during January and July of each year.

**3.4 Municipal and Commercial Thermostat Program.** This task has been substantially upgraded from MSP3 and will focus on two sources of thermostats: Primary Source - thermostats from municipal locations (town halls, DPW garages, schools), and Secondary Source - thermostats recycled/reclaimed at Commercial HVAC supplier locations.

To the extent practical, SEMASS will conduct co-operative efforts with the Thermostat Recycling Corporation (TRC) of Rosslyn, VA (Web address: <http://www.nema.org/gov/ehs/trc/>) for recycling mercury thermostats or furnishing non-mercury, digital ones. In addition, SEMASS will conduct outreach to HVAC facilities within our Plan Geographic area to try and convince them to join the list of TRC-approved wholesalers.

**Municipal Sources.** SEMASS will support efforts to identify, remove and replace mercury-containing thermostats with non-digital units in municipal buildings (town halls, senior centers, DPW garages, schools) within our Plan geographic area. SEMASS will send a mass-mailing to these municipalities with sign-up information. The Plan activity will focus on a “building-by-building” approach. Facilities will be prioritized based on a first-come, first-served response from the mass mailing. This task activity will provide incentives for all three aspects of this process: furnishing non-mercury units, helping with the cost of installation, as well as the costs of reclamation/recycling of the mercury-containing units. SEMASS will only furnish “standard” non-mercury thermostats. Should complex thermostats (e.g. multi-zone heating/cooling, etc.) be required then municipalities will need to purchase these from an appropriate HVAC supplier and seek follow-up reimbursement from SEMASS.

Activity Scope. This plan includes scope for conducting thermostat conversions at thirty (30) building locations during the Plan period (average 15 per year). For Plan budgeting purposes, each building location assumes the following:

- Twenty (20) standard, non-mercury digital thermostats
- Two (2) complex, non-mercury digital thermostats (assumed 2x cost of above)
- Installation incentive allowance up \$200.00 per building (approximately 3 hours service time)
- Collection of mercury-thermostats and reclamation/recycling using one (1) 5-gallon pre-paid bucket

Timeline. The mass-mailing effort will be conducted at the start of the Plan period. It is assumed that most thermostat conversion activity will take place during spring-summer-fall periods when heating/cooling requirements are less critical.

**Commercial/HVAC Sources.** This portion of the task will continue efforts from MSP3. This task will target mercury-containing thermostats by working with those commercial distributors (e.g., HVAC suppliers, etc.) that have a desire to remove mercury from the waste stream.

Activity Scope. SEMASS will work with TRC to conduct outreach to HVAC suppliers/wholesalers within our Plan geographic area to promote recycling efforts for thermostats and encourage development of a recycling program at their facility. SEMASS will provide logistical support to facilitate reclamation of thermostats (e.g., buckets, packaging, flyers, mercury spill kits, etc) as well as incentive items such as *Dunkin’ Donuts*<sup>TM</sup> coupons.

Scope is included in this Plan to conduct outreach and sponsor collection buckets at twenty (20) HVAC supplier locations (10 per year).

Timeline. The timeline for this activity will be ongoing throughout the period of the Plan.

**3.5 School Clean-Outs.** SEMASS will conduct cleanouts for schools or other educational institutions identified as part of Task 2.1 outreach activities that may have a significant quantity of mercury and/or mercury-containing articles. Clean-ups would include set-up and coordination of the appropriate event, and collection, packaging, transport, and recycling of these products.

Based on past clean-out activities, it is expected that a variety of mercury-containing articles may be encountered including fluorescent lights, mercury thermostats, switches, blood pressure cuffs, laboratory instruments, and elemental sources.

SEMASS will send a mass-mailing to each school district within our Plan geographic area that has not yet had a prior cleanout using lists provided by NEWMOA or our own internal information. This letter will describe the Plan clean-out activities and the opportunity for funding of mercury-free replacement devices such as laboratory instruments, blood pressure cuffs, etc. Any responses will be followed up by the MSP Program Coordinator via letters, telephone calls and/or in-person visits as necessary to gain interest in the activity.

Activity Scope. Funding is included in this Plan budget for implementation of up to twenty (20) school cleanout events (average 10 per year). Costs of cleanouts are based on past expenditures and include funding reimbursement for the removal of mercury, as well as the costs involved for furnishing some degree of replacement units (i.e. thermometers, barometers, etc.). SEMASS may work closely with NEWMOA in conducting clean-out activities, as well as working with a licensed third party reclamation vendor to retrieve mercury from those schools where clean outs are implemented.

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, clean-out activity is usually limited to the duration of the active school year (fall-winter-spring periods).

**3.6 Universal Waste Sheds.** Currently, SEMASS and/or the Department have placed fifty-seven (57) Universal Waste Sheds within SEMASS' sixty-one long-term contracted communities. Therefore, most communities have already taken advantage of this program activity. However, SEMASS will continue to offer sheds to the remaining communities or to those communities who show a true need for the use of additional sheds to be placed at schools and/or municipal buildings for the proper reclamation of mercury-containing articles or to replace a prior shed which is no longer functional. The placement of sheds in additional, key areas could potentially assist some of the larger communities in the collection and temporary storage of mercury-containing products.

Additional efforts have been requested during MSP3 for various shed maintenance support including: additional hazard communication signage, replacement spill kits, and testing materials to confirm/deny if a mercury spill has occurred. SEMASS will continue this support during MSP4.

Activity Scope. Scope is included in this Plan for SEMASS to purchase and place up to four (4) Universal Waste Sheds (average of 2 per year). In addition, additional scope is provided in this Plan to provide signage, replacement spill kits, and mercury spill testing materials to those participants who request them.

Timeline. This activity will be ongoing throughout the period of this Plan.

**3.7 Boatyards, Marinas & Marine Facilities.** As a result of requests by one of SEMASS' stakeholders, SEMASS will continue Plan activity begun during MSP3 for reclamation of mercury-containing products from boatyards, marinas and other marine repair and/or maintenance facilities. It is our understanding that boat bilge pumps are commonly used on boats of all sizes and that these pumps typically contain mercury-containing electrical switches. Replacement of these pumps occurs on a routine basis as part of normal repairs and maintenance. The demographic layout of many SEMASS communities near the ocean and the degree of boating that occurs within these communities makes this a significant source of mercury for diversion/reclamation.

Activity Scope. SEMASS will continue to contact boatyards, marinas, marine facilities and municipal harbormasters in an effort to establish programs to collect marine bilge pumps. SEMASS will employ similar techniques for outreach and recycling employed for business outreach (Task 2.2) and thermostat reclamation (Task 3.4). These approaches may include some or all of the following:

- Preparation of outreach posters, flyers and literature for marina users,
- Advertisement in local marina newsletters
- Meetings with marina or other marine-facility personnel
- Coordinate and support efforts by the Cape Cod Cooperative Extension's (CCCE) outreach to marina/boatyard facilities on Cape Cod and the Islands
- Conduct outreach to marinas/boatyards along the South Coast and other non-cape coastal areas; SEMASS may coordinate outreach efforts with the commonwealth's Coastal Zone Management agency
- Assist with the cost of printing and distribution of advertising such as flyers, posters, and newspaper advertisements
- Provide containment buckets, packaging, and labels for proper packaging of mercury-containing materials
- Provide collection sites with mercury spill kits
- Reimbursement of the costs of a third-party, mercury collection contractor for pick-up and proper recycling of mercury-containing products
- Emphasis on the use and availability of municipal Universal Waste Sheds

Scope is included in this Plan for outreach activities detailed above plus placement and collection of devices from up to twenty (20) marine or boatyard locations (average of 10 per year).

Timeline. The timeline for this activity will be ongoing throughout the period of this Plan. However, clean-out activity is usually limited to the duration of the warm months of the year.

**3.8 Municipal Water Meter Reclamation.** SEMASS will conduct outreach to municipal water and sewer departments within the SEMASS communities to identify any older, unused mercury-containing water meters for purposes of reclamation / recycling.

Activity Scope. SEMASS will query municipalities (either through a direct mail solicitation and/or phone calls) regarding water flow meters in storage or in use with mercury-containing switches. If these municipalities wish to take advantage of the MSP program, then SEMASS

will support the reclamation of these units by a combination of: 1) reclamation at planned activities in their municipality (such as Household Hazardous Waste events), 2) placement in their Universal Waste Sheds, or 3) direct pickup by a reclamation contractor. SEMASS will either reimburse the municipality or authority for the direct costs incurred or fund a reclamation contractor directly.

It will be the responsibility of the municipal water/sewer authority to remove and collect and properly store (in secondary containment) the water flow meters they wish to reclaim. SEMASS or our mercury reclamation contractors will furnish packaging materials (buckets, bags, etc.) for secondary containment or reimburse their cost if purchased by the municipality or authority. Due to the size, complexity and cost of flow meters, SEMASS will not furnish mercury-free replacement units or meters.

Scope and budget is included with this Plan for reclamation of approximately twenty (20) locations (average 10 per year). This assumes that pre-packaged material buckets or boxes can be used and that a single pickup can be conducted at each location.

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

**3.9 Business Reimbursement.** SEMASS will reimburse registered businesses on a first come-first served basis for the eligible costs associated with the reclamation of mercury containing manufactured articles as well as elemental mercury.

Activity Scope. All eligible businesses in the SEMASS communities (as defined in Section II of this Plan) can register and submit claims to SEMASS for reimbursement of the costs incurred in the collection, reclamation, and recycling of mercury and mercury-containing articles. For budgetary purposes during MSP4, reimbursement is based on 50% of eligible costs with a maximum annual reimbursement by SEMASS of \$500.00 per business. Claims for reimbursement will be evaluated and processed by SEMASS on a first come-first served basis on an annual basis. During the 3<sup>rd</sup> Quarter, SEMASS will send out certified/return receipt letters to all registered businesses identifying the parameters and means by which they may apply for reimbursement claims. SEMASS will use the registered business mailing list to notify those businesses of reimbursement opportunities.

As with all tasks with the MSP program, funding is finite for outreach and reclamation of mercury and mercury-containing manufactured articles. Therefore, the total funds available for reimbursement of business-related mercury reclamation costs are detailed in Section VI of this Plan. Should the response from businesses exceed this amount, SEMASS will seek to meet obligations to registered businesses by a combination of the following: a) diversion of unused funding from other tasks, if available, b) reduction of the reimbursement percentages (from target % reimbursement and/or maximum reimbursement \$ amount to lower values), or c) distribution of funding based on date of registration (first come, first-served) and/or date of reimbursement request.

Scope and budget is included with this Plan for reclamation of one-hundred (100) businesses using an average of \$350.00 per business (average 50 per year). This assumes that pre-packaged material buckets or boxes can be used and that a single pickup can be conducted at each location.

Timeline. The timeline for this activity will be conducted primarily on an annual basis in the third and fourth quarters.

#### **Task 4.0 - Program Administration**

Activity Scope. General administrative activities required to operate the MSP4 program activities will be conducted as part of Task 4.0. Activities include:

- Tracking of program costs
- Review of reclamation records and preparation of estimates for mercury reclaimed
- Processing of funding requests
- Routine copying, filing & recordkeeping
- Sub-contractor management
- Processing billing for accounts receivable and accounts payable
- Periodic internal program meetings, management oversight and status reporting.
- Meetings with the Department
- Preparation of the MSP Program Annual Report
- Preparation of letter(s) & responses to Department technical comments or program information requests
- Preparation of the MSP5 Plan (if required)

Timeline. Efforts for this activity will be ongoing throughout the period of the Plan.

#### IV. PROGRAM REPORTING AND SCHEDULE

**Program Reporting.** SEMASS will prepare and submit annual reports to the Department summarizing the results of the Material Separation Plan Program. These annual reports will be based on a calendar year basis (January through December) and be submitted by February 15<sup>th</sup> of the year following or by an alternate schedule approved by the Department. Reports will include a description of activities completed by task, mercury amounts reclaimed on the program and costs expended. As agreed to by the Department and IWSA, mercury amounts will be broken down by type of mercury articles and elemental mercury in two matrices: 1) mercury devices/amounts by long-term SEMASS community and 2) mercury devices/amounts by Plan Task. Costs expended will be compared versus costs budgeted and significant differences will be detailed in the annual report text.

**Program Schedule.** Activities related to MSP4 will be 2 years in duration and will begin on January 1, 2007 and continue through December 31, 2008.

#### V. PERSONNEL

Implementation of the Material Separation Plan requires the efforts of a variety of professional, contractor and supporting organization personnel. Key Parties include the following:

##### SEMASS

- MSP Program Coordinator. SEMASS will continue to provide a Material Separation Plan (MSP) Program Coordinator to oversee and administer the activities described within this Plan. SEMASS will also provide support to the MSP Program Coordinator in the form of office space, administrative support, and administrative logistics (e.g., telephone, copiers, printers, computer, IS Support, fax machine, etc.) necessary to execute this Plan.
- Technical & Management Program Oversight. Technical and management program oversight will be provided on a periodic basis by Covanta Energy and SEMASS personnel to monitor and guide successful implementation of the MSP Program. This oversight support may include personnel with managerial, technical, environmental, legal, and financial backgrounds.

**Covanta Haverhill.** SEMASS personnel may work co-operatively with Covanta Haverhill, MA personnel who operate their own Waste-to-Energy facility and are covered under their own MSP4 Plan. SEMASS and Haverhill may team up to sponsor joint outreach activities or combine on other program tasks if co-operative efforts make sense (for example: procure program supplies at reduced rates by combining purchasing power, etc).

**Contractor Support.** SEMASS will employ outside consultants/contractors in the implementation and other facets of the activities associated with MSP4, as indicated in the Plan. A listing of major contractors is provided below that SEMASS may employ. SEMASS reserves

the right to change, add or eliminate contractors, as required, for successful implementation of the MSP Program.

- Mercury Handling, Pick-Up, Packaging & Disposal. SEMASS will utilize multiple contractors to conduct the field activities associated with pick-up, packaging, transport and reclamation/recycling of mercury and mercury-containing articles. Two contractors that have been used in the past include: 1) Complete Recycling Solutions (CRS) of Fall River, MA and 2) Veolia Environmental Services (formerly Onyx Environmental Services) of Stoughton, MA.
- Mercury Handling and Awareness Training. In instances where supplemental training is conducted under the MSP Program, HAZMATEAM, Inc. of Hudson, NH, will be utilized. This firm specializes in conducting training for proper hazard recognition, handling, packaging and transport of mercury and mercury-containing products.
- Supplemental Mercury Source Identification. Pozitive Environmental Solutions, Inc (PESI) of Stoughton, MA may be utilized to provide additional, auxiliary capabilities to identify and locate potential sources of mercury within the Plan geographic area, especially with regards to business outreach and business reclamation of mercury.

**Supporting Organizations.** SEMASS may work in conjunction with the following supporting organizations to help co-operatively accomplish Plan activities.

- School Clean-Out Assistance. SEMASS will continue to work with staff from the Northeast Waste Management Officials' Association (NEWMOA) of Boston, MA for assistance with conducting school cleanout activities.
- Regional Recycling Coordinators/Organizations. SEMASS will continue to work with Municipal Recycling Coordinators in each of our long-term communities as well as regional recycling organizations. Examples of these include:
  - South Shore Recycling Cooperative (SSRC) of Dover, MA representing several SEMASS south shore communities
  - University of Massachusetts Cape Cod Cooperative Extension (CCCE) of Hyannis, MA representing SEMASS communities on Cape Cod and Martha's Vineyard
  - Cape Light Compact of Barnstable, MA for fluorescent & compact fluorescent bulb recycling.
  - DEP Municipal Assistance Coordinators for the Northeast 1 District (NE1) which encompasses the South Shore/Plymouth County communities, Southeast 2 District (SE2) which includes the South Coast and Bristol County communities, and the Southeast 1 District (SE1) which encompasses the Cape Cod & Islands communities plus Carver, Marion, Wareham, Mattapoisett and Rochester.
- Thermostat Recycling. SEMASS will expand co-operative efforts with the Thermostat Recycling Corporation (TRC) of Rosslyn, VA for assistance with municipal and commercial, thermostat reclamation and recycling.



## VI. PROJECTED PLAN BUDGET

The projected budget based on the scope set forth for the 2 year period of this Plan (2007-2008) is detailed in Table 3, below.

**TABLE 3. PROJECTED MSP4 BUDGET BY TASK**

<b>Task No.</b>	<b>Plan Activity:</b>	<b>Projected Plan Expenditures</b>
<b>1.0</b>	<b>IWSA Education and Outreach</b>	<b>\$100,000</b>
1.1	Advertising	\$ 79,000
1.2	Web-Based Tools	\$ 7,000
1.3	Print Materials	\$ 4,000
1.4	Video	\$ 500
1.5	Evaluation Tool	\$ 9,500
<b>2.0</b>	<b>Local Education and Outreach</b>	<b>\$ 132,000</b>
2.1	Community and School Outreach	\$62,000
2.2	Business Outreach	\$45,000
2.3	Mercury Handling and Awareness Training	\$25,000
<b>3.0</b>	<b>Mercury Reduction / Recycling Programs</b>	<b>\$409,000</b>
3.1	Medical, Dental & Veterinarian Facilities	\$40,000
3.2	Thermometer Exchange Programs	\$35,000
3.3	Community Reimbursement & HHW Support	\$148,000
3.4	Municipal and Commercial Thermostat Program	\$66,000
3.5	School Clean-Outs	\$28,000
3.6	Universal Waste Sheds	\$15,000
3.7	Boatyards, Marinas & Marine Facilities	\$13,000
3.8	Municipal Water Meter Reclamation	\$9,000
3.9	Business Reimbursement	\$55,000
<b>4.0</b>	<b>Program Administration</b>	<b>\$89,000</b>
<b>Grand Total:</b>		<b>\$730,000</b>

This budget includes payments to IWSA, direct reimbursement costs for municipalities, supporting organizations, and businesses, payments to contractors, purchase of supplies and materials, travel and outreach activity costs, local advertising, mailing, postage, copy costs, and internal labor.

Internal labor primarily includes the MSP Program Coordinator, MSP Program Manager, Administrative Support, other Environmental Dept. support, plus a limited amount of SEMASS Facility Management time. Internal labor is not allocated to any single task but rather allocated to each of the tasks as necessary to conduct the work. Similar to any professional consultant, SEMASS personnel associated with the Program track their labor time and allocate it to the appropriate tasks or subtasks (e.g. 2.1, 3.3, 3.8, or 4.0, etc.). No internal labor tasks are allocated

to Task 1.0 (IWSA Education and Outreach). Internal labor costs associated with the MSP Program Coordinator (a full-time employee) are directly factored into the MSP4 budget but include the appropriate multipliers for overhead & benefits. Internal labor costs for other personnel who support the program on a part-time basis are allocated using comparable consultant rates commensurate with their experience and job description. SEMASS uses labor rates comparable to our facility consultant, Brown and Caldwell.

The budget estimates above do not include costs associated with office space costs, rental or overhead nor do they include any internal labor that is not directly required on the program. For example, the costs associated with Accounts Payable staff, Procurement Department Staff, Human Resources personnel, Corporate Management, etc. are not allocated to the program. The costs for these services, again similar to a professional consultant, are considering “included” with the equivalent consultant rates used when allocating internal labor to the program.

**ATTACHMENT A**

**LIST OF LONG-TERM SEMASS COMMUNITIES**

### **List of Long-Term SEMASS Communities**

No.	Community
1	Abington
2	Acushnet
3	Attleboro
4	Avon
5	Barnstable
6	Bellingham
7	Berkley
8	Blackstone
9	Bourne
10	Braintree
11	Brewster
12	Bridgewater
13	Canton
14	Carver
15	Chatham
16	Cohasset
17	Dennis
18	Dighton
19	Duxbury
20	Eastham
21	Fairhaven
22	Falmouth
23	Freetown
24	Halifax
25	Hanover
26	Hanson
27	Harwich
28	Hingham
29	Holbrook
30	Kingston
31	Lakeville
32	Marion
33	Martha's Vineyard
34	Mashpee
35	Mattapoisett
36	Middleborough
37	Norfolk
38	Norwell
39	Orleans
40	Otis Air Nat'l Guard Base/ Massachusetts Military Reservation.
41	Pembroke
42	Plymouth

### **List of Long-Term SEMASS Communities**

No.	Community
43	Plympton
44	Provincetown
45	Quincy
46	Randolph
47	Rochester
48	Rockland
49	Sandwich
50	Scituate
51	Sharon
52	Stoughton
53	Truro
54	Waltham
55	Wareham
56	Wellfleet
57	West Bridgewater
58	Weymouth
59	Whitman
60	Wrentham
61	Yarmouth